

# ECONOMIC IMPACT STUDY: METRO GOLD LINE FOOTHILL EXTENSION PHASE 2A



Los Angeles County Economic Development Corporation

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# Project Description

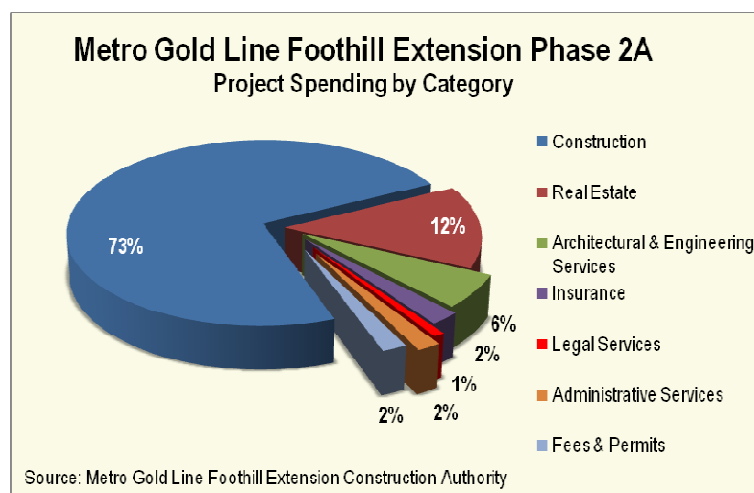
The Metro Gold Line Foothill Extension project extends the Metro Gold Line (which currently runs from between East Los Angeles and Pasadena) east through the San Gabriel Valley to Montclair. The Foothill Extension will add twelve stations in two phases: Phase 2A includes Arcadia, Monrovia, Duarte, Irwindale and two stations in Azusa; Phase 2B adds stations in Glendora, San Dimas, La Verne, Pomona, Claremont and Montclair. This economic impact analysis covers Phase 2A only.



Source: Metro Gold Line Foothill Extension Construction Authority

Construction of Phase 2A is planned for 2010 through the end of 2013 and is expected to cost \$490 million. The project includes guideway improvements and track work (\$75 million); site work (\$107 million); system development (\$80 million); the construction of six stations (\$28 million); and a new rail maintenance facility that will be constructed for an estimated \$200 million (including land acquisition costs).

Our estimate of the total economic impact in the five-county Southern California region of the spending for this project (excluding land acquisition costs and some fees) are shown on the following page.



## Summary Impact in Southern California

### Initial Spending

\$ 490 million

- Total project spending is \$490 million, from which \$79 million in land acquisition and fees was excluded.
- We estimated output, employment and employee earnings using 2008 multipliers from the Regional Input-Output Modeling System developed by the Bureau of Economic Analysis at the U.S. Department of Commerce.
- All impacts are expressed in 2008 dollars.

### Total Output

\$ 930 million

- The total economic output, measured in business revenues, includes direct, indirect and induced effects.
- **Direct revenues** are captured by businesses hired by the construction authority, primarily in construction, architecture and engineering.
- **Indirect and induced revenues** are captured by businesses selling inputs to the firms involved in the direct transactions, or those selling goods and services to workers who are paid by firms involved in the direct transactions.

### Total Employment

6,900 jobs

- **Direct employment** includes the people working on the Foothill Extension project.
- **Indirect and induced workers** are those whose jobs are sustained by purchases of inputs for the construction activity and by household purchases funded by earnings linked to construction-related spending.
- Job creation estimates are measured on a job-count basis for both wage-earners and proprietors regardless of the number of hours worked.

### Total Earnings

\$ 308 million

- Total earnings include earnings of direct, indirect and induced workers.

### Total Tax Revenue

\$ 39 million

- The LAEDC estimates the Metro Gold Line Foothill Extension Phase 2A project will generate at least \$39 million in state income taxes, sales taxes, and local fees.
- Data limitations prevent the measurement of additional taxes, such as corporate income taxes and fuel taxes.

## Industry Sector Impacts

The economic impact of construction of the Metro Gold Line Foothill Extension Phase 2A spills across industries in the Southern California five-county region through indirect and induced effects. The complete list of impacts by industry sector due to spending for this project appears in the table below.

Much of the impact will occur in the construction industry, with more than one third of the total (direct, indirect and induced) employment generated by the program and more than 40 percent of the earnings. However, other industries are also significantly impacted, including: professional and scientific services; retail trade; accommodations and food services; and manufacturing.

Impact of Project in Southern California by Industry Sector			
Industry Sector	Output (\$ million)	Jobs	Earnings (\$ million)
Agriculture	\$ 3.2	30	\$ 0.6
Mining	3.0	10	0.7
Utilities	14.3	20	2.5
Construction	321.9	2,630	126.4
Manufacturing	124.6	420	22.0
Wholesale trade	33.9	170	10.8
Retail trade	51.6	690	16.9
Transportation and warehousing	23.7	160	7.7
Information	23.1	90	5.6
Finance and insurance	49.2	190	13.2
Real estate	66.1	140	4.4
Professional, scientific and technical services	85.7	730	39.8
Management of companies	13.2	70	6.8
Administrative and waste management	28.0	360	12.5
Education services	6.4	100	2.9
Health care and social assistance	35.5	370	17.2
Arts, entertainment and recreation	6.2	100	2.5
Accommodations and food services	19.8	400	7.6
Other services	21.1	210	6.9
Households	n/a	50	0.5
<b>Total *</b>	<b>\$ 930</b>	<b>6,900</b>	<b>\$ 308</b>

\* May not sum due to rounding

Source: LAEDC

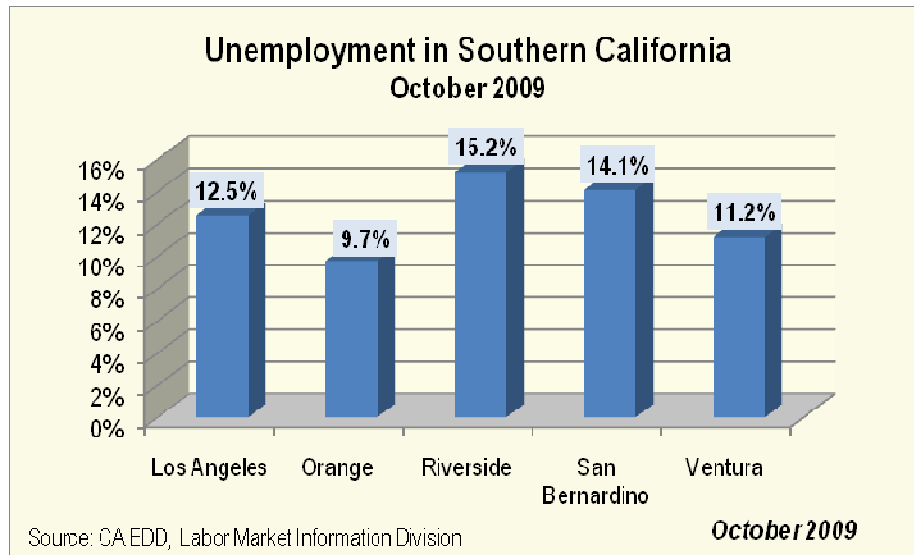
2008 dollars

The values in the table should be interpreted as illustrative of the industry effects rather than precise given model and data limitations. A description of these industries is provided in the Appendix.

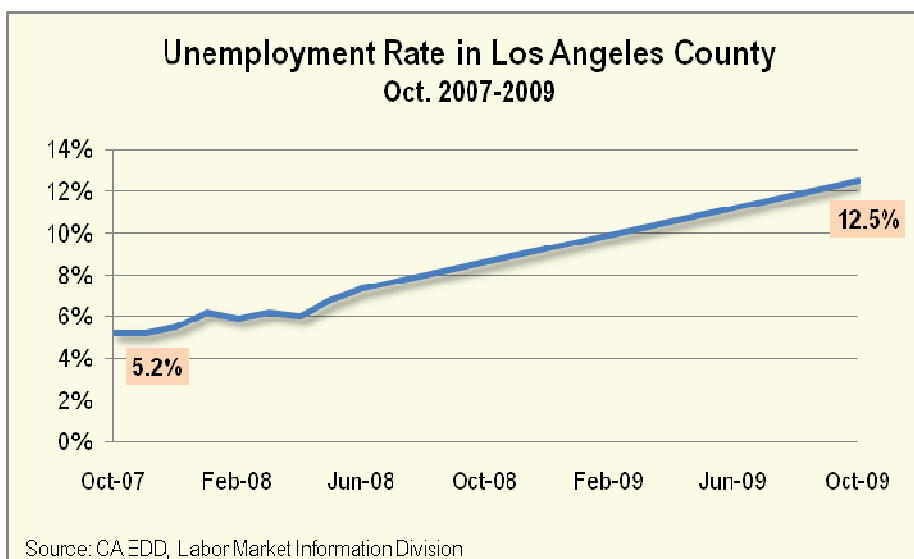
## Discussion

### *Employment Impact of the Metro Gold Line Foothill Extension Phase 2A Construction*

In October 2009, the unemployment rate in the five counties of Southern California region ranged from 9.7 percent in Orange County to 15.2 percent in Riverside County.

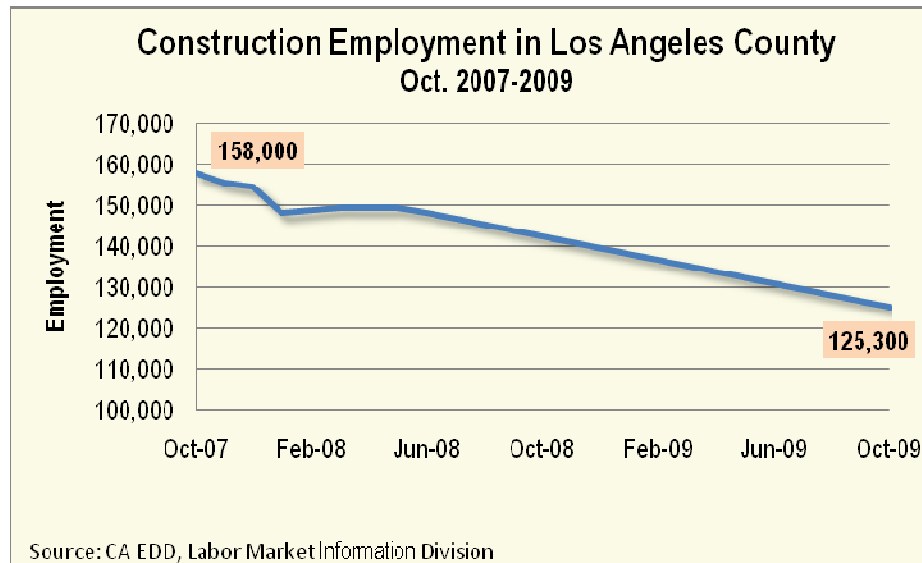


Between October 2007 and October 2009, the unemployment rate in Los Angeles County more than doubled, rising from 5.2 percent to 12.5 percent.



While total employment in the county shrank by at least 233,600 jobs during this two-year period, almost 15 percent of these losses, or 32,700 jobs, were in the construction sector.

The Metro Gold Line Foothill Extension Phase 2A project will create 6,900 jobs, about 2,600 of which will be in construction. This represents 8 percent of the construction jobs lost over the past two years, and more than 2 percent of *current* industry employment.



The current recession has hit construction harder than perhaps any other industry. Any new activity in the sector will be a welcome relief, particularly during the early stages of economic recovery.

### ***Long Term Impacts***

The economic and fiscal impacts estimated in this report cover only the initial spending on construction of Phase 2A of the Metro Gold Line Foothill Extension. Phase 2B, extending the line to Montclair, will create additional construction impacts not covered in this report. After it opens, the Metro Gold Line Foothill Extension project will likely spur further development and economic activity for many years. The combination of efficient transit and appropriate zoning has been a catalyst for investment and long term economic development around stations in other cities. We expect a similar pattern of densification and transit-oriented (re)development around the stations of the Metro Gold Line Foothill Extension, the economic impact of which is not measured here but which could be significant.

# Appendix

## Methodology

The total estimated economic impact includes direct, indirect and induced effects. **Direct activity** includes the materials purchased and the employees hired by the Gold Line Foothill Extension Construction Authority (the Authority) and its contractors during the project construction period. Here we account for construction workers which have been added due to the project and the materials purchased for the project. **Indirect effects** are those which stem from the employment and business revenues motivated by the purchases made by the Authority and its contractors. For example, indirect jobs are sustained by the suppliers of the office supplies and insurance purchased by contractors hired for the construction. **Induced effects** are those generated by the spending of employees whose wages are sustained by both direct and indirect spending.

We used data supplied by the Authority for initial spending, and estimated the direct, indirect and induced effects using multipliers from the Regional Input-Output Modeling System (RIMS II) developed by the Bureau of Economic Analysis at the U.S. Department of Commerce. In all cases, we have proceeded as if the spending will take place within a single year, as is customary when using RIMS II multipliers, although Phase 2A is anticipated to last thirty months. For long-term projects such as multi-year transportation improvement projects, the reader is cautioned to note that the modeling system does not account for changes in prices and wages over time. Thus our earnings and output estimates are not adjusted for future inflation, but are reported in constant (2008) dollars.

The estimated economic impacts are based on spending within the five-county Southern California region, which includes the counties of Los Angeles, Orange, Riverside, San Bernardino and Ventura. These counties are chosen as representative of the region most affected by the Authority's projects. Although most of the employment and economic activity will be in Los Angeles County, we expect that the workforce, the materials purchased, and the businesses that will be impacted by the Authority's spending are located throughout the five-county Southern California region. Indeed, most of the materials expected to be used in new construction (such as cement) or on renovations (such as fixtures and paint) will be supplied by businesses not in Los Angeles County itself but within the surrounding counties. Data limitations prevent us from estimating how much of the overall construction spending will take place outside of the region; for example, construction materials might be *purchased* locally but be manufactured elsewhere. In some instances, spending related to a project may occur in neighboring counties such as Santa Barbara or Imperial and thus generate *additional* economic impact that spills over from those neighboring counties. This spillover is not captured by our five-county analysis.

The budget category denoted as right-of-way acquisition is excluded from economic impact analysis since this is an exchange of assets.

Job creation (or earnings) estimates are based on national average relationships between output and employment (or earnings). Where such relationships at the regional level differ



from the national relationships, the impacts may be marginally understated or overstated. Job creation estimates are measured on a job-count basis for both wage-and-salary workers and proprietors regardless of the number of hours worked.

### ***Description of Industry Sectors***

The industry sectors used in this report are established by the North American Industry Classification System (NAICS). NAICS divides the economy into twenty sectors, and groups industries within these sectors according to production criteria. Listed below is a short description of each sector as taken from the sourcebook, *North American Industry Classification System*, published by the U.S. Office of Management and Budget (2007).

*Agriculture, Forestry, Fishing and Hunting:* Activities of this sector are growing crops, raising animals, harvesting timber, and harvesting fish and other animals from farms, ranches, or the animals' natural habitats.

*Mining:* Activities of this sector are extracting naturally-occurring mineral solids, such as coal and ore; liquid minerals, such as crude petroleum; and gases, such as natural gas; and beneficiating (e.g., crushing, screening, washing and flotation) and other preparation at the mine site, or as part of mining activity.

*Utilities:* Activities of this sector are generating, transmitting, and/or distributing electricity, gas, steam, and water and removing sewage through a permanent infrastructure of lines, mains, and pipes.

*Construction:* Activities of this sector are erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs.

*Manufacturing:* Activities of this sector are the mechanical, physical, or chemical transformation of material, substances, or components into new products.

*Wholesale Trade:* Activities of this sector are selling or arranging for the purchase or sale of goods for resale; capital or durable non-consumer goods; and raw and intermediate materials and supplies used in production, and providing services incidental to the sale of the merchandise.

*Retail Trade:* Activities of this sector are retailing merchandise generally in small quantities to the general public and providing services incidental to the sale of the merchandise.

*Transportation and Warehousing:* Activities of this sector are providing transportation of passengers and cargo, warehousing and storing goods, scenic and sightseeing transportation, and supporting these activities.

*Information:* Activities of this sector are distributing information and cultural products, providing the means to transmit or distribute these products as data or communications, and processing data.

*Finance and Insurance:* Activities of this sector involve the creation, liquidation, or change of ownership of financial assets (financial transactions) and/or facilitating financial transactions.

*Real Estate and Rental and Leasing:* Activities of this sector are renting, leasing, or otherwise allowing the use of tangible or intangible assets (except copyrighted works), and providing related services.

*Professional, Scientific, and Technical Services:* Activities of this sector are performing professional, scientific, and technical services for the operations of other organizations.

*Management of Companies and Enterprises:* Activities of this sector are the holding of securities of companies and enterprises, for the purpose of owning controlling interest or influencing their management decision, or administering, overseeing, and managing other establishments of the same company or enterprise and normally undertaking the strategic or organizational planning and decision-making of the company or enterprise.

*Administrative and Support and Waste Management and Remediation Services:* Activities of this sector are performing routine support activities for the day-to-day operations of other organizations, such as: office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services.

*Educational Services:* Activities of this sector are providing instruction and training in a wide variety of subjects. Educational services are usually delivered by teachers or instructors that explain, tell, demonstrate, supervise, and direct learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace, or the home through correspondence, television, or other means.

*Health Care and Social Assistance:* Activities of this sector are operating or providing health care and social assistance for individuals.

*Arts, Entertainment and Recreation:* Activities of this sector are operating facilities or providing services to meet varied cultural, entertainment, and recreational interests of their patrons, such as: (1) producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; (2) preserving and exhibiting objects and sites of historical, cultural, or educational interest; and (3) operating facilities or providing services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure-time interests.

*Accommodation and Food Services:* Activities of this sector are providing customers with lodging and/or preparing meals, snacks, and beverages for immediate consumption.

*Other Services (except Public Administration):* Activities of this sector are providing services not specifically provided for elsewhere in the classification system. Establishments in this sector are primarily engaged in activities, such as equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and providing dry-cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.